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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,689	06/23/2003	Thomas C. Russell	M02A441	7976

20411 7590 11/23/2007

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EXAMINER	
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ART UNIT	PAPER NUMBER
2155	

MAIL DATE	DELIVERY MODE
11/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/601,689	RUSSELL ET AL.	
	Examiner	Art Unit	
	Benjamin R. Bruckart	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 October 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Detailed Action

Claims 1-32 are pending in this Office Action.

Claims 16 and 23 are amended.

Specification

The disclosure remains objected to because it references copending application numbers. It would be more appropriate to refer to this case by its publication number 20040260404 or by the end of prosecution, a patent number.

Response to Arguments

Applicant's arguments filed in the amendment filed 10/15/07, have been fully considered but they are not persuasive. The reasons are set forth below.

Applicant's invention as claimed:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-15, 16-22 and 23-27 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2003/0023333 by Birkle et al (Applicants IDS).

Regarding claim 1, an equipment area network (EAN) for a plurality of pieces of equipment (Birkle: page 1, para 6), comprising:

a plurality of local controllers each being dedicated and connected to an individual one of said plurality of pieces of equipment (Birkle: page 2, para 21, 22), respectively;

a plurality of local Web servers each being dedicated and connected to an individual one of said plurality of controllers, respectively (Birkle: page 2, para 22); and

local isolation means for selectively isolating said equipment area network from other networks outside of said equipment area network, said plurality of local Web servers being individually connected to said isolation means (Birkle: page 2, para 25; Fig. 3, tag 10).

Regarding claim 2, the EAN of claim 1, further including:
local browser means connected to said isolation means for selectively communicating with said plurality of local Web servers, and with remotely located Web servers in said other networks (Birkle: page 2, para 23).

Regarding claim 5, the EAN of claim 2, wherein said local isolation means includes a plurality of local router/switches each being connected to all of individual ones of said plurality of local controllers, respectively, to individual ones of said plurality of local browser means, respectively, and to at least one of said other networks (Birkle: page 2, para 25; page 4, para 43-44).

Regarding claim 7, the EAN of claim 5, wherein said local browser means includes a plurality Web browsers, and said plurality of local router/switches are each connected to an individual one of said Web browsers, respectively (Birkle: page 2, para 23).

Regarding claim 9, the EAN of claim 7, wherein said plurality of Web browsers each include: a

PC (Birkle: page 1, para 7); and

web browser software means for programming said PC to provide Web browser functions (Birkle: page 1, para 7; page 2, para 23, 25).

Regarding claim 12, the EAN of claim 5, further including:

said plurality of local router/switches each having a unique address (Birkle: page 2, para 25; Fig. 3, tag 10; control server also has a web server that has an IP address), respectively;

said plurality of local Web servers each having the same network address (Birkle: page 4, para 48; the address of the control server); and

said local browser means includes a plurality of Web browsers each having the same address (Birkle: page 4, para 48).

Regarding claim 14, the EAN of claim 12, further including a plurality of Ethernet input/output modules each having the same network address, and each being connected to individual ones of said plurality of local router/switches, respectively (Birkle: page 2, para 24-25).

Regarding claim 6, the EAN of claim 2, wherein said local browser means includes a plurality of Web browsers each being individually connected to said local isolation means (Birkle: page 2, para 25; page 4, para 43-44).

Regarding claim 8, the EAN of claim 6, wherein said plurality of Web browsers each include: a

PC (Birkle: page 1, para 7); and

web browser software means for programming said PC to provide Web browser functions (Birkle: page 1, para 7; page 2, para 23, 25).

Regarding claim 3, the EAN of claim 1, wherein said plurality of local controllers each consist of a programmable logic controller (Birkle: page 3, para 33).

Regarding claim 4, the EAN of claim 1, wherein said local isolation means includes a plurality of local router/switches each being connected to individual ones of said plurality of local Web servers respectively, and to at least one of said other networks (Birkle: page 2, para 25; Fig. 3).

Regarding claim 10, the EAN of claim 4, further including a plurality of Ethernet input/output modules connected to individual ones of said plurality of local router/switches, respectively (Birkle: page 2, para 24; Fig. 3).

Regarding claim 11, the EAN of claim 4, further including:

said plurality of local router/switches each having a unique address (Birkle: page 2, para 25; Fig. 3, tag 10; control server also has a web server that has an IP address), respectively; and

said plurality of local Web servers each having the same network address (Birkle: page 2, para 25; Fig. 3, tag 10).

Regarding claim 13, the EAN of claim 11, further including a plurality of Ethernet input/output modules each having the same network address, and each being connected to individual ones of said plurality of local router/switches, respectively (Birkle: page 2, para 24-25).

Regarding claim 15, the EAN of claim 1, wherein said plurality of local Web servers each further include means for providing Web pages identifying their associated piece of equipment, optionally its interconnection with other equipment included in the EAN, its present operating parameters, and other data of interest relative thereto (Birkle: page 2, para 25-27).

Regarding claim 16, an equipment area network (EAN) for a piece of equipment (Birkle: page 1, para 6; Fig. 3) comprising:

a controller dedicated and connected to said equipment (Birkle: page 2, para 21-25);

a local Web server connected to said controller (Birkle: page 2, para 22); and

isolation means connected to said Web server, for selectively isolating said EAN from other networks outside of said equipment (Birkle: page 2, para 25; Fig. 3, tag 10),

wherein said EAN is dedicated to said equipment (Birkle: page 1, para 6; Fig. 3).

Regarding claim 17, the EAN of claim 16, further including a local HMI Web browser connected to said isolation means (Birkle: page 2, para 22-23).

Regarding claim 18, the EAN of claim 16, wherein said controller is a programmable logic controller (Birkle: page 3, para 33).

Regarding claim 19, the EAN of claim 16, wherein said isolation means consists of a router/switch (Birkle: page 2, para 25; Fig. 3, tag 10).

Regarding claim 20, the EAN of claim 16, further including:

said controller consisting of a programmable logic controller (Birkle: page 3, para 33); and

said isolation means consisting of a router/switch (Birkle: page 2, para 25; Fig. 3, tag 10).

Regarding claim 21, the EAN of claim 17, wherein said local HMI Web browser includes:

a PC (Birkle: page 1, para 7); and

web browser software means for programming said PC to provide Web browser functions (Birkle: page 1, para 7; page 2, para 23, 25).

Regarding claim 22, the EAN of claim 16, wherein said local Web server includes means for providing Web pages identifying said piece of equipment, optionally its interconnection with other equipment, its present operating parameters, and other data of interest relative thereto (Birkle: page 3, para 30-40).

Regarding claim 23, a method for providing an equipment area network (EAN) for each one or more pieces of equipment or devices (Birkle: page 1, para 6), wherein for each local piece of equipment the method comprises the steps of:

connecting a local controller to the piece of equipment wherein said local controller is dedicated to said equipment (Birkle: page 2, para 21-25);

connecting a local Web server to said controller (Birkle: page 2, para 22);

connecting a local router between said Web server and a computer network, for providing isolation therebetween while allowing selective communication therebetween (Birkle: page 2, para 25; Fig. 3, tag 10); and

assigning a unique network address to said router for devices outside the EAN (Birkle: page 2, para 25; Fig. 3, tag 10; control server also has a web server that has an IP address),

wherein said EAN is dedicated to said equipment (Birkle: page 1, para 6; Fig. 3)

Regarding claim 24, the method of claim 23, further including the steps of: connecting at least one Ethernet based input/output module to said router for devices inside the EAN (Birkle: page 2, para 24-25).

Regarding claim 25, the method claim 23, further including the steps of:

connecting a spare port to said router for connection to one of the group consisting of a laptop computer, sub-systems of said equipment, and other devices inside the EAN (Birkle: page 2, para 25; Fig. 3).

Regarding claim 26, the method of claim 23, further including the step of:

connecting a local HMI Web browser to said router (Birkle: page 2, para 22-23; page 3, para 32).

Regarding claim 27, the method of claim 23, further including the steps of:

assigning the same network address, if an address is required, to each controller associated with each piece of equipment (Birkle: page 2, para 25; Fig. 3, tag 10; control server also has a web server that has an IP address); and

assigning the same network address to each Web server associated with each piece of equipment (Birkle: page 4, para 48; the address of the control server).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 28-29, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2003/0023333 by Birkle et al (Applicants IDS) in view of U.S. Patent No. 7,058,973 by Sultan.

Regarding claim 28,

The Birkle reference teaches the method of claim 26, further including the steps of:

(A) configuring said router to receive requests from Web browsers both local and remote to said EAN (Birkle: page 2, para 22-23);

(G) forwarding the response to the associated said local Web browser of said EAN (Birkle: page 2, para 22-23).

The Birkle reference fails to teach Network Address Translation.

However, the Sultan reference teaches

(B) responding to a request from a Web browser by having said router check the source network address of the requesting browser (Sultan: col. 5, lines 60-67);

(C) determining in response to a requesting local Web browser the destination network address it is requesting (Sultan: col. 6, lines 14-20);

(D) configuring said router to respond to a destination network address for a remote Web server by using network address translation (NAT) to translate the associated source network address (Sultan: col. 6, lines 2-5);

(E) forwarding via said router to said remote Web server an answer to the request (Sultan: col. 3, lines 1-11);

(F) receiving via said router a response from said remote Web server that it received the answer (Sultan: col. 2, lines 42-53) in order to pass information across the internet in a secure manner (Sultan: col. 1, lines 7-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of Birkle to include network address translation as taught by Sultan in order to pass information across the internet in a secure manner (Sultan: col. 1, lines 7-21).

Regarding claim 29,

The Birkle reference the method of claim 28,

(M) forwarding a response via the associated said local router to the requesting remote browser.

The Birkle reference fails to teach ignoring requests.

Hoever, the Sultan reference teaches further including after step (B) the steps of:

(H) determining in response to a requesting remote Web browser the destination network address it is requesting (Sultan: col. 2, lines 65 – col. 3, line 11);

(I) ignoring the request in response to the destination network address being for a remote Web server (Sultan: col. 4, lines 50-54);

(J) sending the request to the associated local Web server in response to the destination network address being that of another local Web server (Sultan: col. 3, lines 1-11);

(K) Operating the associated local Web server to check the source network address of the Web browser making the request (Sultan: col. 5, lines 60-67);

(L) responding to the request via the associated said local Web server using remote privileges if the source network address is that of a remote Web browser (Sultan: col. 3, lines 42-45) in order to pass information across the internet in a secure manner (Sultan: col. 1, lines 7-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of Birkle to include network address translation as taught by Sultan in order to pass information across the internet in a secure manner (Sultan: col. 1, lines 7-21).

Regarding claim 31,

The Birkle reference teaches the method of claim 29

(P) forwarding a response via the associated said local router to the requesting local browser (Birkle: page 2, para 22-23).

The Birkle reference fails to teach ignoring requests.

Hoever, the Sultan reference teaches

(O) responding to the request via the associated said local Web server using local privileges if the source network address is that of a requesting local Web browser (Sultan: col. 3, lines 42-45) in order to pass information across the internet in a secure manner (Sultan: col. 1, lines 7-21).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of Birkle to include network address translation as taught by Sultan in order to pass information across the internet in a secure manner (Sultan: col. 1, lines 7-21).

Claims 30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent Publication No. 2003/0023333 by Birkle et al (Applicants IDS) in view of U.S. Patent No. 7,058,973 by Sultan in further view of U.S. Patent No. 5,805,442 by Crater et al (Applicant IDS).

Regarding claim 30,

The modified Birkle reference teaches the method of claim 29.

The Birkle reference fails to teach passwords.

However the Crater reference teaches (N) authenticating via the associated said local Web server the password of the requesting remote Web browser (Crater: col. 8, lines 37-63) in order to appropriately control client's access to data (Crater: col. 9, lines 3-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of Birkle to include passwords as taught by Crater in order to appropriately control client's access to data (Crater: col. 9, lines 3-7).

Regarding claim 32,

The modified Birkle reference teaches the method of claim 29,.

The Birkle reference fails to teach passwords.

However the Crater reference teaches authenticating via the associated said local Web server the password of the requesting local Web browser (Crater: col. 8, lines 37-63) in order to appropriately control client's access to data (Crater: col. 9, lines 3-7).

It would have been obvious to one of ordinary skill in the art at the time of the invention to create the method of Birkle to include passwords as taught by Crater in order to appropriately control client's access to data (Crater: col. 9, lines 3-7).

REMARKS

Applicant has presented amendments to two of the three independent claims emphasizing dedicated between the controller and equipment and EAN and the equipment. Applicant argues each of the claims as being not taught by Birkle but only presents substantial arguments towards the independent claims.

The Applicant Argues:

Regarding claims 1, 16 and 23, the Birkle reference does not teach a plurality of controllers each being dedicated to an individual one of the plurality pieces of equipment.

In response, the examiner respectfully submits:

The Birkle reference does teach the claimed limitation and the rejection is maintained. Birkle teaches an Equipment Area Network (Fig. 3, page 2, para 21). Birkle teaches a plurality of local controllers each being dedicated and connected to an individual piece of equipment, see page 2, para 21-25 where it is interpreted to show "at least one system control" and "a plurality of intelligent application components." Each 'intelligent application component' has its own homepage, interface. Paragraph 24 defines intelligent application components have a control part and a device part. Each intelligent application component is managed separately via the webpage control and management of the device as indicated in Figures 1, 2 and page 2, para 22, 23.

The plurality of local web servers each being dedicated and connected to an individual controller is taught by Birkle on page 2, para 21-25 again where each piece of device has a corresponding webpage (homepage) best seen in Fig. 3 tags 13, 17. "Each intelligent system component preferable has a WEB server of its own here with at least one homepage of its own" (page 2, para 22).

An isolation means for selectively isolating said EAN from other networks is show on page 2, para 25 where bridges and rooters may be integrated into the network and can segment a network into smaller deterministic networks, thus by isolating them. Each web server is shown to

be individually connected to an isolation means because each device has access to the network through a network interface, see Fig. 3, tags 15.

Regarding claim 4, the web servers are connected to the network and Birkle teaches a using rooters and bridges to segment and connect networks. Each device is connected to the network and has an address. By applicant's specification, each web page, server can have its own router to control access to the device and that network. By this interpretation, the plurality of web servers of Birkle and the plurality of bridges and rooters via the network allow access to the equipment.

Regarding claim 5, see the argument for claim 1, the controller interpretation is explained above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number 571-272-3982.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on (571) 272-4006. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and after final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner whose telephone number is 571-272-3982.

Benjamin R Bruckart
Examiner
Art Unit 2155 BRB

Philip Tran
PHILIP TRAN
PRIMARY EXAMINER